

DEBRIS REMOVAL SYSTEM AND METHOD OF USING SAME
ABSTRACT OF THE DISCLOSURE

An automatic screening apparatus for removing debris from a liquid stream includes a drive mechanism mounted to a support frame. A screen connects to the support frame and collects debris while allowing the liquid to flow through. The drive mechanism positions and interchangeably couples to a first carriage assembly and a second carriage assembly. The first carriage assembly includes a rake that removes the collected debris from the screen. The second carriage assembly includes a bucket that removes the debris collected from the rake. A plunger directs the debris from the rake into the bucket. At selected intervals, the drive mechanism decouples from the first carriage assembly and couples to the second carriage assembly, whereupon the second carriage assembly is positioned to dump the bucket. After dumping the bucket, the drive shaft is decoupled from the second carriage assembly and coupled to the first carriage assembly, whereupon the cycle is repeated.